No. 101 JULY 1969

RESOURCE MANAGEMENT REPORT

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HON. RENE BRUNELLE
Minister

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Deputy Minister

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FISH AND WILDLIFE BRANCH

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RESOURCE MANAGEMENT REPORT

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THE GERALDTON DISTRICT ENFORCEMENT REPORT 1968

by
J. Gow, Wildlife Management Officer

Abstract

During the 1968 fiscal year, Conservation Officers checked 6448 anglers and hunters in the Geraldton District. Both convictions and warnings were the highest on record: 143 convictions were registered with the Courts in 1968. In addition, two charges were withdrawn, two charges were dismissed, two seizures were made from persons unknown. Another 62 anglers and hunters were warned for some small infraction of the Game and Fish Act.

The Provincial Treasury was enriched by $4490.00 as a result of fines collected. "Over-possession of fish" accounted for the largest share (51%) of the angling infractions. "Loaded firearms in motor vehicles", (which includes cars, boats and snow machines) accounted for 44.7% of the hunting infractions.

Introduction

The enforcement statistics are derived from the "Enforcement Tally Form." It is compiled by each officer and forwarded to District Office at the end of each month. Our present complement includes five full time Conservation Officers. Each officer has approximately 9,000 square miles of patrol area in his Division. Types of "offence, seizures and return of prosecution" records for each individual case are recorded and filed at the District Office.

Contacts and Enforcement Techniques

With the modern equipment at their disposal, Conservation Officers during the fishing and hunting seasons, can gather information for management purposes, assess specific resources, enforce the Game and Fish Act and other pertinent legislation anywhere in our District.

Mechanized patrols by car, motor boat, snowmobile and Department aircraft account for 75% of contact with hunters and fishermen. Another 15% of the sporting fraternity are interviewed and examined at tourist outfitters headquarters and Provincial Parks. The remaining 5% of contacts with hunters and fishermen are strictly miscellaneous encounters.

The nuisance animal complaints in the Geraldton District are very few. Muskrats in someone's yard, especially in the spring, the odd black bear upending garbage cans are the most common complaints received.

Nature of Charges

Nearly one-half (44.7%) of all hunting convictions in 1968 involved firearms in motor boats, cars, trucks, snowmobiles and motor bikes. For having loaded firearms in the above vehicles, 29 hunters were prosecuted. Another 14 hunters were convicted for having unencased firearms in an area that game inhabits during the prohibited hours. One very disturbing infraction during the 1968 hunt were the amount of hunters convicted for hunting without a licence. There were 16 prosecutions for this infraction. Fourteen of these convictions involved non-resident hunters.

Convictions against anglers were extremely high for our District with a total of 78. Fifty-one per cent of these convictions were for "over-possession limits of fish." Twenty per cent were for "unidentifiable fish fillets." Twelve per cent were for "fishing without a licence."

Acknowledgments

I wish to thank all Conservation Officers who kept records and provided the material for this report.

ENFORCEMENT SUMMARY - GERALDTON DISTRICT - 1968

Sportsmen checked:

	Resident	Non-resident	TOTAL
Anglers	1649	2091	3740
Hunters	1402	1306	2708
TOTAL SPORTSMEN CHECKED:	3501	3397	6448

Sportsmen warned for Violations:

	Residents	Non-residents	TOTAL
Anglers	11	8	19
Hunters	24	19	43
TOTAL WARNED:	35	27	62

Sportsmen Charged and Convicted:

	Residents	Non-residents	TOTAL
Anglers	8	70	78
Hunters	27	38	65
TOTAL CONVICTED:	35	108	143

2 cases were dismissed

2 charges withdrawn on advice of Crown

2 seizures from persons unknown

FINES COLLECTED:	Resident	Non-residents	TOTAL
Anglers	$ 268.00	$ 1950.00	$ 2218.00
Hunters	728.00	1544.00	2272.00
TOTAL FINES COLLECTED:			$ 4490.00

SUMMARY OF CONVICTIONS 1968

HUNTING

Nature of Charge	Resident	Non-resident	TOTAL	Percent
Loaded firearm in or on motor vehicles (cars, boats, sno-toboggans, etc.)	13	16	29	44.7
Unencased firearms prohibited hours	8	6	14	21.6
Illegal moose	1	0	1	1.5
Hunting without a licence	2	14	16	24.7
Unplugged shot gun	0	1	1	1.5
Illegal trapping	1	0	1	1.5
Transferred licence	0	1	1	1.5
Illegal possession migratory bird	1	0	1	1.5
Shooting grouse out of season	1	0	1	1.5
TOTAL HUNTING CHARGES	27	38	65	100%

SUMMARY OF CONVICTIONS 1968

FISHING

Nature of Charge	Resident	Non-resident	TOTAL	Percent
Overlimit of Fish	0	40	40	51.3
Too many lines	0	3	3	3.8
Angling without a licence	0	10	10	12.8
Illegal gill nets	1	0	1	1.3
Unidentifiable fish	0	15	15	19.2
Seine net without a licence	0	2	2	2.6
Taking fish by means other than angling	5	0	5	6.4
Fishing out of season	2	0	2	2.6
TOTAL FISHING CHARGES	8	70	78	100.0

TOTAL residents convicted: 35
TOTAL non-residents convicted: 108
TOTAL CONVICTIONS 1968: 143

RACCOON - DOG LICENCE HARVESTED

Lake Simcoe District 1968-69

by
J.S. Dorland

Abstract

During 366 man nights of hunting raccoon 42 holders of a raccoon hunting night licence report harvesting 804 raccoons. Hunting took place in 25 different townships in the district with the greatest number of raccoon reported taken in the Township of Nottawasaga, Simcoe County. Average number of raccoon harvested per hunter is 19.2. The average number taken per night of hunting is approximately 2.2 raccoon. Carcasses 77.8% were discarded, 11.2% went for dog food, 5.8% human consumption and 5.2% were unreported.

Introduction

This report is the second attempt to obtain some information on the harvest and disposal of raccoon taken under the raccoon-dog licences within the Lake Simcoe District. Procedure in gathering figures are the same as in 1967-68, "mailed questionnaire." The following figures are compiled from the returned questionnaires.

Statistics	1967-68	1968-69
Number of licences issued in the District	35	51
Number of questionnaires forwarded	35	51
Number of questionnaires returned	26	42
Number of hunters using their licences	21	40
Number of nights of hunting reported	241	366
Number of raccoon harvested	382	804
Number of raccoon pelts sold	344	786
Number of raccoon pelts unreported	24	18
Number of raccoon carcasses used for dog food	64	89
Number of raccoon carcasses used for human consumption		47
Number of raccoon carcasses discarded	137	626
Number of raccoon carcasses unreported as to disposal	181	42
Average number of raccoons taken by hunters	18.2	19.2
Number of raccoons taken per night of hunting	1.6	2.2
Number of Townships in which hunting took place	21	25

TABLE I

Statistics by Townships

Township	Hunter	Nights Hunted	Harvest
Mono	5	31	55
Mulmur	2	10	70
East Luther	1	2	8
Uxbridge	3	19	33
Brock	1	1	1
Scott	4	17	73
Reach	1	1	2
Scugog	1	1	4
Whitby	1	2	
Pickering	1	23	29
Caledon	2	6	23
Albion	1	1	2
Chingaucousy	2	11	25
Oro	3	37	78
Innisfil	2	6	22
Vespra	2	3	4
Sunnidale	4	28	63
Essa	2	18	59
Nottawasaga	3	23	117
Scarboro	1	1	2
Markham	2	9	2
King	4	43	26
East Gwillimbury	2	20	24
Georgina	3	11	14
Whitchurch	6	42	68
District Total		366	804

TABLE II

Number of Nights Hunted by the Month

Month	No. of Hunters	Nights Hunted
August	2	11
September	4	15
October	20	130
November	30	178
December	11	32

TABLE III

Disposal of Raccoon Carcasses

		Percent of Total Harvest
Total raccoons harvested	804	
Number of carcasses discarded	626	77.8
Number of carcasses used for dog food	89	11.1
Number of carcasses used for human consumption	47	5.8
Number of carcasses unreported	22	2.7
Number of carcasses given away (disposal unknown)	20	2.5

Summary and Discussion

The results this year show an increase in all figures over those of 1967-68. The harvest reported from the raccoon licence during 1968-69 is approximately 50% of the total recorded harvest from trappers during the 1967-68 open season for trapping.

The greatest number of raccoon harvested under this licence again came from the township of Nottawasaga. See Table I. The months of October and November are the two months in which most of the hunting is carried out. See Table II. As in past years most carcasses are discarded and only a small percentage of the total is used for food. See Table III.

Hunting Licence Examination Report

Tweed District 1968

by
Wm. W. Bittle,
Wildlife Management Officer

Abstract

The Hunter Safety Examination programme in the Tweed District was assigned to the four Chief Ranger Divisions with an Officer in each Division being responsible for its function.

The Wildlife Management Officer at District Office acted as co-ordinator which included necessary staff training.

Application forms submitted to District Office were re-assigned to the Divisions concerned.

Examinations centres were located in sifficient areas whereby applicant travelled less than 20 miles to be examined.

Introduction

The examinations were scheduled at Department Offices and at 4 outside locations. Also, unscheduled examinations were held at the conclusion of Hunter Safety Training Courses in certain schools and Fish and Game Club Centres.

The bulk of the examinations (95%) were held during the period of time from September 1st to December 31st. The Napanee Divisions accounted for 71% of the total examined.

Division Reports are attached.

Results of District's Compilations

No. of Applications Received	Applicants Examined	Number Passed	Number Failed	Percent Failures
1227	1201	1037	164	13.6

Of the total failures (164)

Failed practical test - 46 or 28.0%

Failed written test - 118 or 72.0%

* Results - having H.S.T. Course.

No. of applications - 844

No. of failures - 96

Percent failures - 11.4%

Results - without a H.S.T. Course

No. of applications - 242

No. of failures - 55

Percent failures - 22.7%

* - Records kept for this purpose.

Costs and Revenue

An effort was made to determine the cost of the programme and to see if it was being supported by the revenue received.

Costs: -

Salaries "A"	$2,498.42
Travel	370.09
Maintenance	69.00
Equipment	8.00
Total Costs	$2,945.51

Revenue

1201 examined @ $3.00 - $3,603.00

Benefit

657.49

General Remarks

As outlined in the reports, there are several ambiguous questions on the examination papers. These questions are not clearly understood by the applicants and it is suggested that some modification be made.

Firearms in good working order and of various actions are vitally required for each Division to carry out our Hunting Licence Examinations.

HUNTER SAFETY PROGRAM

NAPANEE DIVISION 1968

by
P.B. Hogan, Conservation Officer

Abstract

The calender year 1968 saw 853 persons examined by Conservation Officers in the Napanee Division. Examinations were held at various centres with most applicants being processed through appointments. Applicants with hunter safety training passed at a rate 8% higher than those without. Overall Division cost to carry out the program was $2,068.65.

Introduction

The hunter safety program introduced into New York State in 1949, has become a mushrooming program in Ontario since it was instituted on a voluntary basis in 1957. On September 1, 1960, new legislation made it mandatory for all new hunters to take hunter safety training and 1967 saw additional legislation under which our present program is controlled. Presently an applicant for a hunting licence must produce:

(1) A previous hunting licence of any kind, or

(2) A hunting licence certificate issued by a Department of Lands and Forests examiner indicating the passing of a Department examination.

All persons under 20 years of age must complete a hunter safety training course and receive a certificate before writing the Department examination.

Method

Examination centres were located throughout the Division to properly handle any applications from the 230,000 resident population.

Examination centres were located as follows:

1. Napanee - Lands & Forests Office
   Napanee High School
2. Kingston - Lands & Forests Office
   Local High Schools
3. Belleville - Recreation Centre
4. Trenton - Town Hall
5. Sydenham - Town Hall
6. Prince Edward County - Outlet Provincial Park Office, Lands & Forests
   North Beach Provincial Park Lands and Forests
7. Frankford - Rod & Gun Club house

Although there is not an appointed hunter safety officer for the Napanee Division, one Conservation Officer was assigned the responsibility of the program. All the Fish and Wildlife staff in the Division were required to assist as the workload demanded. An examination schedule was utilized for the last four months of the year although the number of applications received controlled the degree of adherence. Examinations were carried out at some centres especially, Prince Edward County, to coincide with the completion of the hunter safety training courses.

During the course of the year 36 hunters safety training instructors were examined and certified by the Department. Additional requests by interested parties have been received and these will be examined to qualify as instructors in 1969.

A total of 900 letters were mailed from the Napanee Office in connection with hunter safety. Those include letters of application sent to those applying for examination. Due to a limited time factor many appointments were made by phone. In addition many appointments were set up by attending one night of the various courses and making appointments directly with the students.

Officers also attended the regular hunter safety courses to lecture on hunting regulations, management, techniques, and also to answer the various questions asked by the students.

Results

During the 1968 calendar year a total of 729 new hunters successfully qualified for their hunting licence in the Napanee Division (Table I). Many new hunters 20 years of age and over did not complete the hunter safety training course which resulted in a significantly higher failure rate (Table II).

A total effort of 579 man hours was spent in this program by the Napanee Division staff. This along with mileage, meals, hall rentals and secretary wages brought the operational total cost to $2,068.65 (Table III).

It is felt that the program in the Napanee Division was a success with a minimum number of complaints.

TABLE I

MONTHLY EXAMINATION BREAKDOWN

PERIOD	Total Exam.	Failures Written	Failures Practical	Failures Total	Percent Failure
Jan.1 - Aug. 31	115	10	3	13	11%
Sept. 1 - 30	360	40	16	56	16%
Oct.1 - 31	208	25	12	37	18%
Nov. 1 - 30	101	5	3	8	8%
Dec.1 - 31	69	5	5	10	15%
TOTALS	853	85	39	124	15%

TABLE II

COMPARATIVE PASSING SUCCESS WITH OR WITHOUT TRAINING

	Jan. 1 - Aug. 31	Sept. 1 - 30	Oct. 1 - 31	Nov. 1 - 30	Dec. 1 - 31	TOTALS
TOTAL EXAMINED	115	360	208	101	69	853
APPLICANTS WITH TRAINING		287	150	74	62	573
NUMBER PASSED		248	126	69	53	496
PERCENT PASSED		87%	84%	93%	85%	87%
NUMBER OF FAILURES		39	24	5	9	77
PERCENT FAILURES		13%	16%	7%	15%	13%
APPLICANTS NO TRAINING		73	58	27	7	165
NUMBER PASSED		56	45	24	6	131
PERCENT PASSED		76%	77%	89%	85%	79%
NUMBER OF FAILURES		17	13	3	1	34
PERCENT FAILURES		24%	23%	11%	15%	21%

TABLE III

PROGRAM COSTS BREAKDOWN

PERIOD	HRS. SPENT	MILES DRIVEN	MEALS COST	HALL RENTALS
Jan.1-Aug.31	149	665	32.00	10.00
September	197	942	56.73	12.00
October	132	721	35.10	12.00
November	45	241	7.70	---
December	56	300	11.80	5.00
TOTALS	579	2869	143.33	39.00

Man hours 579 at $2.64 per hour	$1,528.56
Vehicle mileage 2869 at .04 per mile	114.76
Meal Costs	143.33
Hall Rentals	39.00
Secretary hours 100 at $2.43 per hour	243.00
Total Cost	$2,068.65

Discussion and Recommendations

The written portion of the examination seemed quite difficult to some students on the basis that the questions were not clearly understood. The following are some suggested improvements in this respect:

Form EX I Question 1 Part 2
Form EX 3 Question 11 Part 2
Form EX 4 Question 7 Part 2

Question - If there is grease in the bore of your gun when you shoot -

The barrel may be bulged or burst is the answer expected. However, many students connect grease with gun oil and are instructed to oil their guns when cleaning. Therefore a better wording would be - if there is excess grease in the bore of your gun -

Form EX 1 Question 8
Form EX 3 Question 17

Question - Ammunition should not be crushed or struck with a hammer or stone because if it went off -

The last four words of this question should be deleted because when ammunition is spoken of in terms of going off, the applicant thinks of the lead shooting away and therefore incorrectly answers the question. If the last four words were not in the question, the meaning would be much clearer.

Form EX 3 Question 5
Form EX 5 Question 15

Question - Every Canadian should be interested in the ability to handle a firearm well because -
Answer - Shooting in <u>all</u> forms is a pleasant healthy sport.

The above questions should be deleted from the examination completely as it has no bearing on hunter safety and the answer is not correct as ALL forms of shooting are not necessarily pleasant and healthy.

Form EX 1 Question 3 Part 2
Form EX 3 Question 8 Part 2

Question - Rim fire ammunition is called that because

In this case the question is all right but of the choice of answers two are so near correct it makes the above a trick question. The priming is inside the rim is the correct answer however the rim is hit by the firing pin to explode the powder direct is chosen by many and only the word "direct" makes the statement not totally true. Therefore the second selection should be left out entirely.

The following are from the true and false section of the examination.

1. The holder of a deer licence cannot shoot small game birds or ducks during the deer season - this should read the holder of <u>only</u> a deer licence.

2. The safest way to carry a deer out is over your shoulder - this question should be included on all the exams and should constitute a failure if it is wrong.

3. The question referring to "Sound" shots should be put in part two of every exam and should constitute a failure if answered incorrectly, as it is possibly

the most serious mistake a hunter can make.

When the hunter safety schedule is set up for the Napanee Division for 1969, it is recommended that a better examination centre be found in Kingston as the present sit, Department of Lands and Forests Office, does not have proper space or facilities for examining.

It is also suggested that the schedule for Prince Edward County be set up to hold examinations after the end of hunter safety training courses. In this way there will be an adequate number of students for each examination.

The schedule should be sent to each instructor who should be advised that the scheduled dates are the dates of examination and will be strictly adhered to. These examination schedules should be published in the newspapers and no walk-ins should be accepted.

Examination centres should have at least one examination date on a weekend to give the people ample opportunity to be examined. If no applications are received in the Division Office before the scheduled date, the centre should not be open.

The equipment in the Division presently consists of four guns, two shotguns and two rifles. The weapons are in very poor condition and should be replaced as soon as possible. It is very poor procedure to allow a new hunter to demonstrate safe hunting with a firearm that is in an unsafe condition.

A take down fence and false punt should be obtained to better examine the applicant during the practical portion of the examination.

One Officer cannot control the hunter safety program and also maintain properly and completely all other aspects expected of a field conservation officer. The hunter safety program keeps him in the office and the examination centres during the day and it also involves a great deal of night work. Not only is the officer required to examine a great number of applicants, he is required to attend meetings and lecture at courses of instruction. He must also insure there are adequate numbers of instructors and that they are giving the students proper instructions. Proper public relations must be maintained with every type of person especially the unsuccessful applicants.

Acknowledgements

I wish to thank all the Department staff of the Napanee Division who helped in the examination of new hunters during 1968 and their submission of data for this report.

HUNTING LICENCE EXAMINATIONS REPORT

DACRE DIVISION - 1968

by
A.J. Ruxton, Fish and Wildlife Group Leader

One hundred and forty-nine Hunting Licence Examinations were held in the Dacre Division during 1968. Of the one hundred and forty-nine applicants 122 successfully passed the examination and 27 failed (See Table I).

For the purpose of this report the information has been broken down from January 1 to September 1, 1968, and from September 1, 1968 to December 31, 1968, when Hunter Safety Training became mandatory for all persons under the age of 20.

Examinations were held in the three sub-divisions as follows:

Sub-division	Examination Centre	Number of Applicants
Dacre	Lands and Forests Office Dacre	22
	Game & Fish Club House Arnprior	44
	Presbyterian Church Hall Calabogie	18
	Renfrew Collegiate Institute Renfrew	38
Plevna	Lands & Forests Office Plevna	4
Palmer Rapids	Lands & Forests Office Palmer Rapids	23
TOTAL EXAMINATIONS		149

Cost of Program

Permanent Staff salaries 150 hrs. @ $2.90	$ 435.00
Mileage - 1100 miles @ $.04	44.00
Travel	35.00
Maintenance	30.00
TOTAL COSTS	$ 544.00

All halls used for examination purposes were donated therefore no hall rental costs were incurred.

Examinations were carried out by the following staff:

J.G. Stewart - Conservation Officer
H.M. Allore - Conservation Officer
F.S. Day - Conservation Officer
A.J. Ruxton - Conservation Officer

Table II compares the failures in the written portion of the examination with the failures in the practical portion of the examination.

Tables III and IV compare the success of applicants with Hunter Safety training against the success of those without any formal hunter safety training. It is obvious from the much higher success rate in applicants with hunter safety training that this training is desirable and beneficial to new hunters.

Comments

1. Presently the only firearms we have for use in our hunter exams are old seized firearms which have been condemned because they are unsafe. These firearms were originally used to demonstrate unsafe firearms in the training portion of the program and are not suitable for use in examinations. It would appear that if we have set ourselves up as examiners we should not expect the applicants to use defective firearms in their practical examinations. The fundamental rule in hunter safety is to handle safe firearms safely. In view of this, Dacre Division should be supplied with a variety of firearms, (bolt action, lever, pump, etc.), and dummy ammunition to be used for hunter examinations.

2. Some sections of the examination are ambiguous and are confusing to the students writing the exams. Following is a list of some of these sections:

Exam 1, Page 1 - True or false question, "A 22 rim fire is legal for hunting deer." It is legal, however, it is not a desirable calibre for deer hunting. Many instructors stress the fact that many deer are wounded because of the use of .22 rifles. Many students mark this question false because of this. It should be removed or expanded to include the words "but is not a desirable calibre", or words to that effect.

Exam 3, Page 2 - Question 15 - Every Canadian should be interested in the ability to handle a firearm well because shooting in all it's forms is a pleasant healthy sport. It is obvious that shootings such as murder, hunting accidents, wars, etc., is not a healthy sport. Some students and examiners have been critical of this wording and it should be changed to indicate that legal and safe shooting in all it's forms is a pleasant healthy sport.

Exam 4, Page 1 - True or false question - regarding sound shots should be removed from the paper, or, because of it's serious implications should be reason for a failure if answered incorrectly.

Exam 1, Page 4 - Section 15 - regarding how a firearm may be carried in a power vehicle - answer unloaded, action open, or encased. This answer tends to confuse some students as their interpretation is that the rifle can be unloaded with the action open or loaded and encased.

Exam 1, Page 3 - Question XI, Exam III, Page 2, Question IV, Exam 5, Page 3, Question XIV - All these sections deal with the proper way to cross a fence safely. However, each section has a different answer as the correct one.

3. There is a problem, particularly in the outlying areas in the division, in finding qualified people with the patience and time to take over the hunter safety training program. It is recommended that the mandatory safety training for hunters under 20 be dropped or some additional incentive be given to instructors to take over the training of young hunters. It appears unfair that we demand these people have a safety training course but are unable to provide the course for them without their waiting sometimes up to four or five weeks and driving 30 or 40 miles to centres where this training is being provided.

4. Further maintenance money is needed in 1969 to build mock boats, fences, etc., for use in the Dacre Division.

TABLE I

Number Applications	Number Applicants Not Trying Exams	Number Applicants Trying Exams	Number Passed	Number Failed	Percent Passed	Percent Failed
Period Jan. 1 to Sept. 1 1968						
1		1	1		100%	
Period Sept. 1 to Dec. 31 1968						
152	4	148	121	27	81.8%	18.2%

TABLE II

Failures	Failed Practical	Failed Written	% Failed Practical	% Failed Written
Period Jan.1 to Sept. 1 1968				
Nil	--	--	--	--
Period Sept. 1 to Dec. 31 1968				
28	6	22	21.4	78.6

TABLE III

APPLICANTS WITH HUNTER SAFETY TRAINING

Number	Number Passed	Number Failed	Percent Passed	Percent Failed
Period Jan. 1 to Sept. 1 1968				
1	1	--	100	
Period Sept. 1 to Dec. 31 1968				
120	106	14	88.3	11.7

TABLE IV

APPLICANTS WITHOUT HUNTER SAFETY TRAINING

Number	Number Passed	Number Failed	Percent Passed	Percent Failed
Period Jan. 1 to Sept. 1 1968				
Nil	--	--	--	--
Period Sept. 1 to Dec. 31 1968				
28	14	14	50	50

Hunting Examination Report 1968

Bancroft Division

by
J.J. Thibadeau, Fish and Wildlife Group Leader

Hunting examinations started in Bancroft in 1968 on September 11th. with a schedule being set up for every second Wednesday. However it was necessary to change the schedule to every Wednesday during September and October months.

DATE	APPLICATIONS	EXAMINED	PASSED	FAILED
Sept. 11	13	13	12	1
Sept. 18	16	16	14	2
Sept. 25	2	2	2	
Oct. 2	2	2	2	
Oct. 9	1	1	1	
Oct. 23	29	29	26	3
Oct. 30	6	6	6	
Nov. 6	2	2	2	
TOTAL	71	71	65	6

8.45% of the total hunters examined were failures. The failures were all in the written test and although minor faults were found in the field test, no major faults were found.

Three Conservation Officers spent a total of 70 man hours in direct examinations. Clerical work and involvement in training programs involved approximately 45 hours making a total of 115 man hours. Expenditures for hunter safety examinations for 1968 are as follows:

SALARIES	TRAVEL	MAINTENANCE	EQUIPMENT
$330.00	$7.00	0	$8.00

Although hunter safety examinations is not a major work load problem in this Division it does involve a schedule which must be adhered to. At least one Officer must be scheduled for examiner every Wednesday during the months of September, October and November.

Hunter Safety Training courses by Fish & Game Clubs is a very important factor in this area and must be encouraged.

The one question is the written test which seems to create confusion is the moving of the front or rear sight in the right direction. This does not create the same problem in the field test.

Additional firearms would be appreciated for examination purposes. We are now in possession of a single barrel shotgun and a twenty-two rifle.

Hunting Licence Examination Report

Tweed 91 Division 1968

by
Ed Shears, Fish & Wildlife Group Leader

Summary of Results

No. of applications received	-	134
No. of applicants examined	-	128
No. passed	-	121
No. failures	-	7
Percent failures	-	5.5
No. failed written test	-	5
No. failed practical test	-	2
No. with H.S.T. Course	-	92
No. without H.S.T. Course	-	36

Summary of Costs

Salaries "A"	-	$204.86
Travel	-	26.00
TOTAL		$230.86

Revenue - 128 @ $3.00 = $384.00

Benefit - $153.14

A COMPARISON OF SEX-AGE COMPOSITION OF MOOSE ON A HEAVILY AND A LIGHTLY HUNTED AREA - GERALDTON DISTRICT 1968

by
W.J. Cook, Conservation Officer

Abstract

1969

A sex-age study was conducted between December 16 and 31 this year. The goal was to classify 400 moose as to sex and age composition on each area to give statistically sound data. A total of 304 moose was classified as to bull, cow and calf. A total of 152 was spotted on a heavily hunted area and 152 on a lightly hunted area. Data indicate a lower percentage of bulls on the heavily hunted area (27.6%) than on the lightly hunted area (36.8%). Calf:cow ratios are similar for both areas (hunted 1:3.07 compared to 1:2.93 unhunted). It is recommended that we collect more of this type of data from our heavily hunted area.

Purpose

The survey was conducted on request from Head Office, the purpose being to compare sex-age ratios of moose on a heavily hunted and a lightly hunted area.

Method

Two areas, one lightly hunted and the other heavily hunted, were surveyed in a manner similar to the method used for the aerial moose inventory census. Initially, two 400 square mile areas were laid out being further expanded as time allowed. The project did not begin until December 16 due to lack of flying weather and unsafe ice conditions. Males were distinguished by presence of antlers. Calves were differentiated from adults by size comparison.

Description of Areas

A. Heavily Hunted Area

The heavily hunted area was made up of three areas.

Area No.1 (approximately 400 square miles)

This area is generally flat with glacial deposits of eskers apparent on part of the area. Undrained potholes and lakes are abundant as are muskeg and swamp. Broad, gently rolling plains are also apparent on the area. Approximately 50% of the area has been cut-over, with about 35% being less than 10 years old.

Area No.2 (approximately 100 square miles)

The topography consists of gentle rolling hills. Physiographically, the area is predominantly massive clay and silt. The original forest cover was cut-over 10-15 years ago with oncoming browse appearing quite abundant.

Area No.3 (approximately 100 square miles)

Physiographic features consist of outwash deposits (sand, fine sand, gravel) modified by lake action. Eskers and rolling plains vary the topography. This is an area displaying a 10-12 year cut-over with regeneration heavy to deciduous tree species.

B. Lightly Hunted Area

Topography of this area is rugged with deep valleys and block-like hills. Soil is made up of sandy till with bedrock exposed over much of the area. The forest composition is approximately 40% mixed and hardwood, 50% conifer and 10% open.

Observations

The initial goal of the project was to classify 400 moose on each of a heavily hunted and lightly hunted area. This aim was not achieved. Unsafe ice conditions for aircraft landings and poor flying weather retarded the commencement of the survey. The survey began on December 16 with December 31 being the deadline for flying operations.

A total of 304 moose was classified over a total area of 1200 square miles.

Hunted Area (approximately 600 square miles)

A total of 152 moose was sighted and classified on this area. The figures for sex-age composition are included on the following Table. Two sets of twin calves were noted. Snowmobile tracks were abundant over the area.

Lightly Hunted (approximately 600 square miles)

An equal number of moose, 152 was classified on this area. Sightings were harder to make because of the rugged terrain. Four sets of twin calves were noted. Five bulls were observed with one antler only.

TABLE SHOWING COMPOSITION OF MOOSE ON STUDY AREAS

Hunted Area	Total seen	Male	Percent Female	Calf	M:F.	Calf:F.	Number of Sightings	Average Moose per sight
Area #1 (400 sq. mi.)	88	21.6	61.4	17.0	1:2.8	1:3.6	27	3.3
Area #2 (100 sq. mi.)	20	25.0	45.0	30.0	1:1.8	1:1.5	9	2.2
Area #3 (100 sq. mi.)	44	24.4	57.7	17.7	1:2.3	1:3.2	10	4.5
	152	22.3	58.5	19.2	1:2.62	1:3.07	46	3.3
Lightly Hunted Area (600 sq. mi.)	152	30.3	51.9	17.8	1:1.72	1:2.93	58	2.6

OBSERVATIONS Hunted Area

Date	No.	Male	Female	Calf	Description of Area
Dec.16	1		1	1	Area #1 - mixed
	2		2		"
	3		1		"
	4	5	6	1	Cut-over - hardwood
	5	1	2		" "
Dec. 17	6	4	4		Mixed
	7		2		"
	8		1	1	"
	9		1		Conifer
	10	1	5	2	Cut-over - hardwood
	11	1	2		"
	12		2		Mixed
	13		1	1	Conifer
	14	3	6		"
	15		1	2	Cutover
	16		1		Conifer
	17		4	1	"
	18		1	1	"
	19		1		"
	20	2	3		"
	21	1	1	1	"
	22		2		"
	23		1	1	"
	24		1	1	Mixed
20	25	1			Area #1 - Cut-over
	26		1	1	Conifer
	27		1	1	"
30	28	2	8	1	Area #3 - cut-over
	29		1	2	cut-over
	30	2	1		cut-over
	31		3	2	cut-over
	32	2	2	1	cut-over
	33	1	1	1	cut-over
	34		1		Conifer
	35	2	3		cut-over
	36	1	6	1	Burn
	37	1			Area #2 Conifer
	38		1	1	cut-over
	39		1	1	cut-over
	40		1	1	cut-over
	41		1	1	cut-over
	42		1	1	cut-over
	43		1	1	cut-over
	44	2			cut-over
	45	1	2		Mixed
	46	1	1		"
TOTAL -		34 (152)	89	29	

OBSERVATIONS Un-Hunted Area

Date	No.	Bull	Cow	Calf	Date	No.	Bull	Cow	Calf
Dec. 18	1		2		Dec. 18	25	3	4	
Dec.	2	2			"	26		1	2
	3	1				27	1	1	2
	4		1	2	20	28	1	1	
	5		1	1		29		1	
	6		1	1		30		1	
	7	2	3	3		31		1	1
	8	1	1	1		32	1	2	1
	9	1	2		Jan. 2	33	1	2	1
	10	3	2	1	"	34		1	
	11	2				35	2		
	12	2				36	1	1	1
	13	1				37	1	1	
	14		1	1		38	1	1	1
	15	1				39		1	1
	16		2			40		2	
	17		1	1		41	1		
	18	3	5	1		42		1	
	19	1	1			43		1	
	20	1	2			44	1	1	
	21		1	1		45	1	1	
	22		1	1		46		1	
	23	2	2			47	1	2	
	24	1	2			48	1	2	
						49		2	2
						50		1	
						51		2	
						52		1	
						53	1		
						54	1	1	1
						55		2	
						56		1	
	- (2) sets of twin calves)					57	3	4	
						58		4	
	TOTALS:						46 (152)	79	27

Discussion

As a result of this survey several questions have been raised in our minds. These questions and our possible explanations follow:

Question #1 - How accurate are our data?

Due to the presence of males showing one antler, indicating antler shedding had started, and the occasional difficulty in determining calf from adult, I feel that we have not achieved the desired accuracy. Due to the lack of a statistically sound amount of data I am reluctant to put much weight behind any assumptions. The sex data compiled from the hunted area should, theoretically, be more accurate due to a younger aged group of animals with males retaining their antlers longer.

The sex composition of moose on the lightly hunted area appears abnormal from the normal balance of 50:50 (Petersen, R. 1955, The North American Moose). The difference (bulls 37%, cows 63%) could be due to inaccurate classification. Being influenced by natural mortality mainly, these animals may have an older age structure, therefore, the older males with large antlers would shed them earlier giving the impression that more cows were present on the area than were classified as such.

Another possible explanation may be the effect of the light hunting pressure from an odd fly-in camp.

Question #2 - Why is there such a low percentage of bulls on the hunted area?

Where hunting occurs, a lower percentage of bulls is to be expected. (Petersen, R. The North American Moose). The effect of hunting on the percentage of bulls is due to:

1. Selectivity - The psychological idea of most hunters is that to bag a male of the species increases one's image as a hunter. Therefore, most hunters, if given the opportunity, would kill a bull before a cow.

2. Vulnerability - The greatest portion of hunting pressure occurs during the first two weeks of the hunting season. Theoretically, a bull will be highly mobile at this peak of rutting. (A. deVos and A.T. Cringan, Manual on the Life Histories of North American Wildlife), giving the hunter a greater opportunity to see a bull.

I feel that the low percentage of bulls noted on the heavily hunted area is due to the high degree of accessibility and hunting pressure.

Question #3 - What effect has hunting on reproduction?

Hunting reduces the percentage of bulls in a moose population (Petersen R. op.cit.). This naturally, will tend to limit the number of cows being fertilized as we assume that bulls may be monogamous, due to the fact that being widely scattered the chance for polygamy would not be as likely to occur. Seemingly, this would limit reproduction. However, in our case the percentage of calves is similar for both populations (affected and unaffected by hunting). Of course, these data were collected after the greater percentage of this year's kill was made which devaluates the comparison. Pre-season data would probably show a lower reproduction rate as calves usually constitute a smaller portion of the kill.

Question #4 - Why are moose concentrated more on the heavily hunted area?

Naturally, a heavily hunted area is created by access resulting from timber harvest operations. With increased cutting over the past ten years, and the present clear cutting system, large areas of little or no value to moose for feed or cover have been created. These areas will remain so for a certain period, e.g. 10 years. It is, therefore, compulsory for moose to inhabit the scattered areas which are at such a regenerative state so as to provide suitable range. In my opinion, this habitat situation has caused moose to be unevenly dispersed and in larger groups.

The lightly hunted area displays a uniform forest cover and probably more uniform food and cover conditions in comparison to the heavily hunted area. As a result, our observations show a more uniform dispersal of moose on this area. These larger and less dispersed groups of moose on the hunted area afford an easier differentiation between calf and adult, therefore our classification of age composition may have less bias on the hunted area. We may then have a greater percentage of calves on the unhunted area, as many calves may be called adults if there is much distance between them.

Recommendations

It is desirable to do this survey before antler shedding starts and after there is snow on the ground. This leaves a short period when conditions are ideal. Usually this occurs during freeze-up when aircraft are laid up because of unsuitable ice conditions for landing in emergencies. If possible, I suggest that we try to acquire a helicopter for future age-sex studies.

I fell we need more of this type of inventory data centred on accessible hunted areas.

Acknowledgements

I thank those members of the Fish and Wildlife staff and also Air Service who participated in the survey. Special thanks to B.H. Gibson, Biologist, for his constructive criticisms and ideas.

Literature cited

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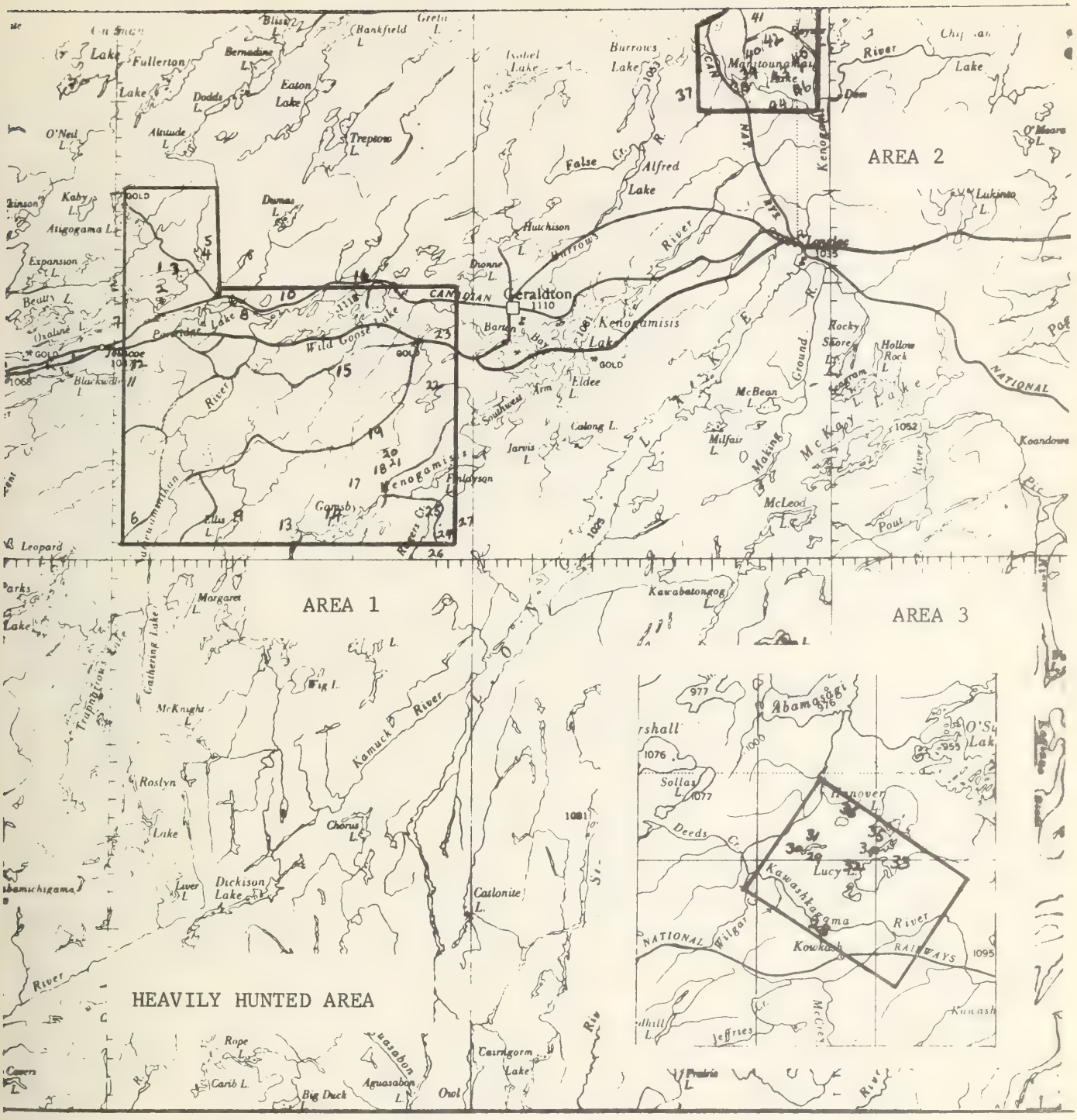
DeVOS, A., and Cringan, A. - A Manual of the Life Histories of North American Wildlife.


AREA 1
AREA 2
AREA 3
HEAVILY HUNTED AREA
Geraldton
1110
Beardmore
1035
Nakina
1068
Longlac
1052
Kenogamisis Lake
Wild Goose Lake
Kamuck River
Kenogami River
Aguasabon L.
Aguasabon River
Cairngorm Lake
Dickison Lake
Roslyn Lake
Kawashkagama River
Kawashkagama L.
Lucy L.
Hanover L.
Sollas L.
Deeds Cr.
Abamasagi
Kowkash
Jeffries
Kawash
Rope L.
Carib L.
Big Duck
Owl
Leopard
Margaret L.
McKnight L.
Big L.
Gathering Lake
Dickison Lake
Catlonite L.
Jarvis L.
Colong L.
Milfair L.
McLeod L.
McBean L.
Eldee L.
Kewabetongog L.
Hutchison L.
Alfred Lake
Burrows Lake
Mantouna Lake
Lukinda L.
Hollow Rock L.
Rocky Shore L.
Lookout L.
Ground R.
Poul
Koandoma
Pic
Kenogami River
Burrows River
False Cr.
Dionne L.
Barton Bay
Southwest Arm
Gamsby
Ellis L.
Fullerton Lake
Bernadine L.
Bankfield L.
Eaton Lake
Dodds L.
Trepeow L.
Dumas L.
Kaby L.
Atigogama L.
Expansion L.
Beatty L.
Unaliné L.
Blackwater L.
Pashkokogan Lake
Trapping River
Catherine Lake
Kamuck River
Rope L.
Caribou Mountain
Mantouna Mine
Mantouna Lake
Chipman Lake
O'Meara L.
O'Neil L.
Altawade L.
Blue L.
Green L.
Isobel Lake
Lake
River
Dam
Gold
Mine
Railways
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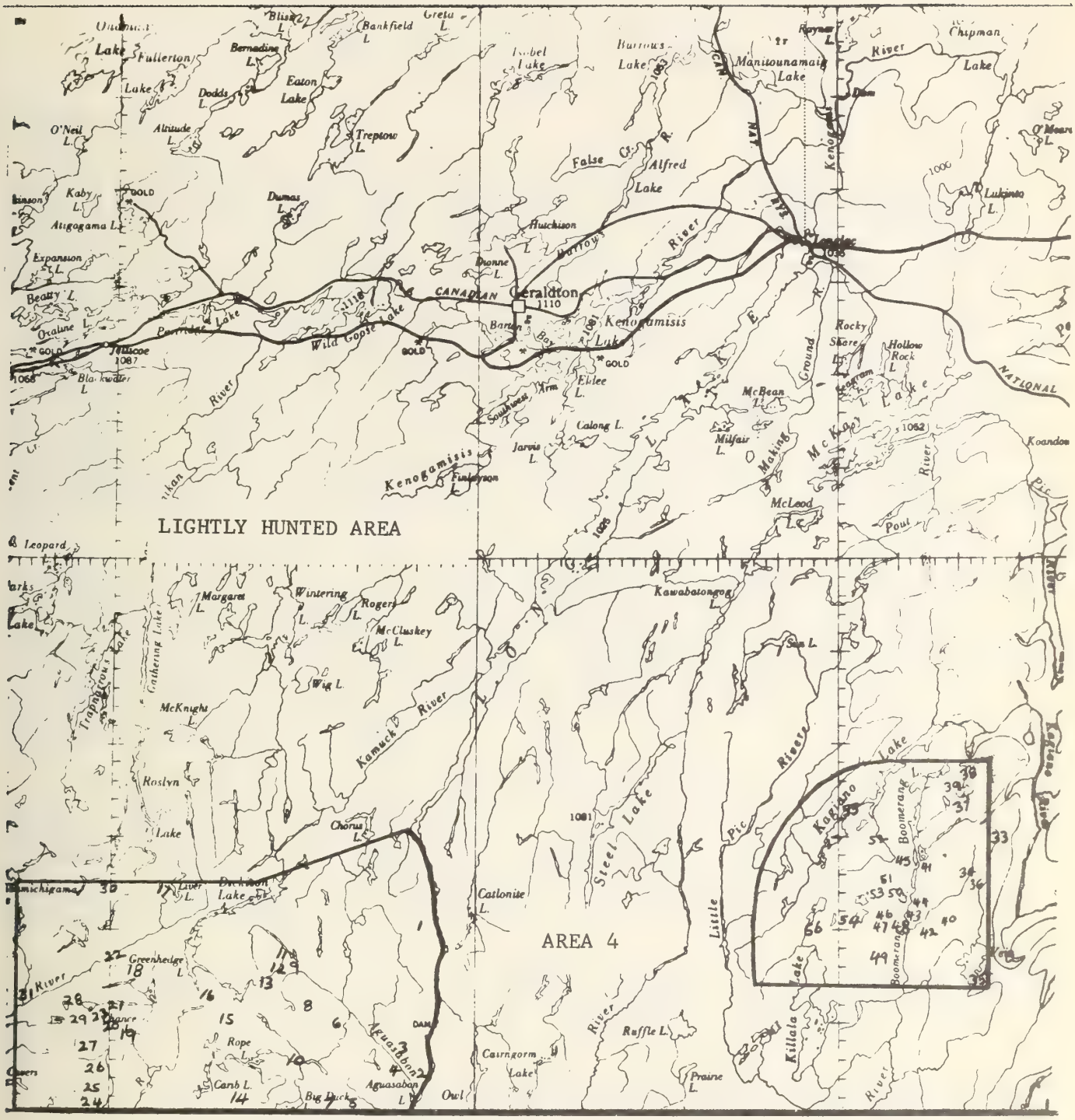
LIGHTLY HUNTED AREA
AREA 4
Geraldton
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Kenogamisis
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CANADIAN
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Hillsdale
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Blackwater
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Wild Goose Lake
Permidat Lake
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Southbeau
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Finlayson
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Margaret
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Wintering
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Rogers
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McCluskey
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Wig L.
McKnight
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Kamuck
River
Roslyn
Lake
Chorus
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Gathering
Lake
Triple
Lakes
Leopard
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Michigama
Lake
Dickson
Lake
Greenhedge
L.
Rope
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Carib L.
Big Duck
L.
Aguasabon
L.
Owl
Catlonite
L.
Steel
Lake
Cairngorm
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Russle L.
Prairie
L.
Killala
Lake
Kagiano
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Boomerang
L.
Pic
River
Little
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River
Sun L.
Pout
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WESTPORT MILL POND PROJECT
Fish Population Study-1968

by
J.D. McNee, Hatchery Manager

Introduction

The Westport Mill Pond is a fish sanctuary closed to fishing in 1949 in order to allow its exclusive use by the Westport Pond Rearing Station being established at that time. It has a surface area of about 55 acres and a maximum depth of 14 feet. Average depth is 4 to 5 feet. The pond is located in the Village of Westport, Leeds County. Numerous residents pump water from it for domestic use and it is not possible to drain or lower the pond to manipulate the fish population. During much of the year a considerable flow of water passes through the pond. Wolfe Lake (elevation 447') is used as a reservoir for the Rideau Canal System and the dam there is controlled by the Federal Department of Transport. Drainage passes through Sand Lake (elevation 441') the level of which is controlled by a dam on Hatchery property. Drainage passes through the Westport Mill Pond (elevation 415') the level of which is controlled by a dam operated by Hatchery staff and to Upper Rideau Lake (elevation 408'). Migration of fish upstream to or from the Mill pond is impossible. Migration downstream over the dams probably occurs only with some species of newly hatched or small fish.

All of the largemouth bass planted from the Westport Rearing Station have originated in the Mill Pond. During the first years of operation - 1951 to 1954 adult largemouth bass were netted prior to spawning and moved to the rearing ponds where spawning occurred. Since that time they have been allowed to spawn naturally in the Mill Pond from which source advanced fry have been collected for rearing to fingerlings in the rearing ponds. Additional advanced fry and small fingerlings have also been collected from the Mill Pond for planting directly from that source in most years.

Netting in the Mill Pond has been conducted with trap nets for specific purposes, such as collection of largemouth bass brood fish, collection of fish specimens for exhibitions and fairs, etc. During these operations large numbers of coarse fish were removed and destroyed, and numbers of northern pike and yellow walleye were transferred to Upper Rideau and Sand Lakes. Records of these operations and the fish handled are negligible, and no concentrated removal of coarse fish has been carried on since 1953.

This Report covers the first step only in a project which we plan to continue for several years and which is more fully described in "Proposed Project - Westport Mill Pond - J.D. McNee, December 1967". The purpose of the project is as follows:

1. To make better use of this pond which is a permanent closure and under hatchery control. We would hope to create conditions favourable to the reproduction growth and harvesting of increased numbers of largemouth bass.

2. To determine the effect of coarse fish removal on fish populations in the pond, with special attention to the effect on the largemouth bass population.

3. To obtain information on the level of harvest at which laregmouth bass may be cropped from this pond on a sustained yield basis.

4. To add to our knowledge of the relationships among warm water species in the pond which is typical of many waters in the area, and to provide some concrete information on which to consider and discuss warm water fisheries management.

Methods and Procedure

Five 6-foot trap nets and two 3-foot hoop nets were used during the period of April 16th to May 3rd, 1968, for a total of 94 net days resulting in a total catch of 17,550 fish (including 3 smallmouth and 842 largemouth recaptures) as outlined on the summary on page 12. The nets were lifted and emptied daily with two men employed almost full time on the project during this period, at a cost of $531.33 for manpower. This does not include supervision, direction, and assistance by the hatchery manager and hatchery assistant during the operation.

It had been planned to operate the nets until later in May, but unseasonably warm weather and high water temperatures indicated an early spawning of bass with which we did not wish to interfere. Some bass did spawn as early as May 8th.

All fish caught, with the exception of largemouth bass and smallmouth bass, were removed from the pond. Total estimated weight of fish removed from the pond was 4,511 lb. Northern pike and yellow walleye, after removal of the right pelvic fin, were planted in Upper Rideau and Sand Lakes. Suckers, bullhead, ling, perch, bluegill, pumpkinseed, rock bass, and black crappie were disposed of by a local commercial fisherman who was employed on the project. We made no charge for the comparatively few fish that were of commercial value which helped to compensate for the use of his truck, fish boxes, etc., and the trouble of disposal of the unmarketable fish.

Representative scale samples were taken from most species, and average total lengths and weights of representative samples were recorded.

Largemouth Bass

A total of 1,060 largemouth bass were captured. All were marked by clipping the right pectoral fin and returned to the pond. During the operation 842 largemouth bass were re-captured.

Size Range of Largemouth Bass

	Under 6"	6"-8"	8"-10"	10"-12"	12"-14"	14"-16"	16"-18"	Over 18"
No. Fish	0	3	16	81	329	430	171	30

Age & Size of Largemouth Bass (100 scale samples)

Year Class	Age Group	No. in Sample	Mean Length	Length Range
1964	IV	3	8.25"	7.75 - 8.5"
1963	V	8	10.1	9.0 - 10.75
1962	VI	8	12.1	11.5 - 12.75
1961	VII	18	13.0	11.5 - 15.75
1960	VIII	11	13.7	11.5 - 16.0
1959	IX	3	14.8	14.25 - 15.5
1958	X	10	16.0	14.75 - 17.5
1957	XI	3	15.9	15.75 - 16.0
1956	XII	0		
1955	XIII	1	17.5	

Thirty-five scale samples were regenerated or unable to read.

Smallmouth Bass

Only 10 smallmouth bass were captured. All were marked by clipping the right pectoral fin and returned to the pond. During the operation 3 smallmouth bass were recaptured.

Age & Size of Smallmouth Bass (12 scale samples)

Year Class	Age Group	No. in Sample	Mean Length	Length Range
1965	III	1	10.0	
1964	IV	2	10.1	9.75 - 10.5
1963	V	6	11.2	12.5 - 14.75
1962	VI	0		
1961	VII	1	10.5	
1960	VIII	2	13.8	12.0 - 15.5

Since only 10 smallmouth bass were captured it would appear that scale samples were duplicated with 2 fish.

Yellow Walleye

Twelve yellow walleye were captured. All were marked by clipping the right pelvic fin and 11 were planted in Upper Rideau Lake and 1 in Sand Lake.

Age & Size of Yellow Walleye (7 scale samples)

Year Class	Age Group	No. in Sample	Mean Length	Length Range
1965	III	I	15.5	
1964	IV	0		
1963	V	2	16.4"	16.0 - 17.75
1962	VI	0		
1961	VII	2	21.0	20.25 - 21.75
1960	VIII	0		
1959	IX	1	26.5	

One scale sample was regenerated or unable to read.

Northern Pike

Three hundred and three northern pike were captured. All were marked by removal of the right pelvic fin and 156 were planted in Upper Rideau Lake and 147 planted in Sand Lake.

Age & Size of Northern Pike (100 scale samples)

Year Class	Age Group	No. in Sample	Mean Length	Length Range
1966	II	6	16.5	14.25 - 18.75
1965	III	32	19.7	17.25 - 22.50
1964	IV	24	22.4	20.50 - 25.00
1963	V	17	24.8	21.25 - 28.00
1962	VI	5	26.9	24.25 - 29.00
1961	VII	1	28.0	

Fifteen scale samples regenerated or unable to read.

Sunfish

A total of 13,583 sunfish averaging 5 fish per pound (2716 lb.) were captured and removed from the pond. Nearly all were too small for any commercial market, and were ploughed under by a local farmer for fertilizer. Numbers of bluegill and pumpkinseed sunfish were not recorded separately, but bluegill were predominate.

Age & Size of Bluegill (100 scale samples)

Year Class	Age Group	No. in Sample	Mean Length	Length Range
1963	V	10	5.5"	5.0 - 6.0
1962	VI	26	6.1"	5.0 - 7.25
1961	VII	33	7.3"	6.5 - 7.5
1960	VIII	15	7.7"	7.25 - 8.25

Sixteen scale samples were regenerated or unable to read.

Age & Size of Pumpkinseed (100 scale samples)

Year Class	Age Group	No. in Sample	Mean Length	Length Range
1964	IV	2	6.5"	6.25 - 6.75
1963	V	23	6.6"	5.75 - 7.0
1962	VI	43	6.7"	5.25 - 7.5
1961	VII	18	7.5"	6.0 - 7.75
1960	VIII	6	7.8"	7.5 - 8.25

8 scale samples regenerated or unable to read.

Yellow Perch

Seventy-four yellow perch were captured and all removed from the pond. They averaged about 3 fish per lb. No commercial market, but a few were eaten by local people.

Age & Size of Black Crappie (100 scale samples)

Year Class	Age Group	No. in Sample	Mean Length	Length Range
1965	III	4	6.7"	6.5 - 7.25
1964	IV	8	7.2"	6.75 - 7.75
1963	V	19	7.9"	7.0 - 9.0
1962	VI	20	8.9"	7.75 - 10.5
1961	VII	23	10.2"	8.5 - 11.5
1960	VIII	2	11.0"	10.75 - 11.25

Twenty-four scale samples regenerated or unable to read.

Rock Bass

One hundred and eighteen rock bass averaging 1.8 fish per pound were captured and removed from the pond. No commercial market, but a few were eaten by local people.

Age & Size of Rock Bass (69 scale samples)

Year Class	Age Group	No. in Sample	Mean Length	Length Range
1964	IV	2	5.8	
1963	V	7	6.9	6.0 - 7.75
1962	VI	6	8.0	7.5 - 8.5
1961	VII	15	8.2	7.75 - 8.75
1960	VIII	8	8.8	8.25 - 9.75
1959	IX	11	9.7	9.25 - 10.25
1958	X	2	10.1	9.75 - 10.5

Eighteen scale samples were regenerated or unable to read.

Bullhead

Six hundred forty-four bullhead averaging 1.4 fish per pound were captured and removed from the pond. Some of these were marketed by the commercial fisherman who worked on the project and some were eaten by local people.

Common white sucker

Fifty-two common white sucker with an estimated total weight of 150 pounds were captured and removed from the pond. No commercial market, but many were eaten by local people.

Ling - American burbot

42 ling with an estimated total weight of 84 lb. were captured and removed from the pond. No commercial market.

Reproduction of Largemouth bass in Westport Mill Pond, 1968

With the population of fish in the pond decreased by some 4,511 lb., some species of which interfere considerably with bass during spawning, an increased success in the reproduction of largemouth bass and in survival to the fingerling stage was expected. Instead, the success of reproduction turned out to be one of the poorest in our experience here. This is believed to be entirely due to somewhat unusual weather conditions resulting in unsuitable fluctuations in water temperatures. A partial list of air and water temperatures during the period appears on page 15.

Some largemouth bass in the pond spawned as early as May 8th. due to unseasonably warm weather. Colder weather prevailed during the remainder of May, with wide fluctuations between daily maximum and minimum temperatures. Many of these early nests were abandoned and were a total loss. Later nests in June resulted in extremely poor hatches, and at opening of bass season on June 29th, many bass caught locally were still full of eggs. The situation of extremely poor success in reproduction was not confined to the Mill Pond, but was observed to be general in local waters.

The total collection of largemouth bass fry from the pond was 146,000, and we doubt that we ever collected as large a percentage of the total hatch as we did this year. We have, in some past years, collected over 500,000 fry with much less difficulty.

Discussion

The netting project was carried out during a busy period at Westport, with trout distribution and fin clipping of trout requiring priority consideration. Supervision of the netting operation was therefore somewhat less than may have been desirable. Certain additional records that may have been of interest were not maintained or were not recorded in a suitable manner. For instance, daily water temperatures recorded during the netting are of little value due to improper reading of the instrument, loss of a thermometer, and use of another thermometer giving inaccurage readings.

The two men employed on the netting project did a very creditable job, and we hope that both may be available to work on the project next season.

We have asked for 2 men for approximately 1 month to continue this project in the spring of 1969. The netting operation will be carried on in much the same manner as in 1968, and we feel that some numbers of largemouth bass might well be removed from the pond for plantings in other waters. While 13,583 sunfish - estimated weight of 2716 lb. - were removed in 1968, the reduction in the population of this species still exists.

Acknowledgements

The writer wishes to express his sincere appreciation to all who assisted in this study; John Neal, Hatchery Assistant, for help in supervision; G.E. Raine, Fisheries Biologist, for scale reading and assistance in preparation of this report; S. Flynn who typed the report.

TEMPERATURES - PARTIAL LIST

WESTPORT 1968

DATE	Water-6" depth			Air		
	Max.	Min.	Av.	Max.	Min.	Av.
Apr. 1	Prior to May 7th, water temperatures were recorded a trout pond and are not applicable. Air temperatures were recorded at 8:00 a.m. Water temperatures were recorded between 8:00 a.m. and noon.			68	35	51.5
2				42	29	35.5
4				55	35	45
8				66	34	50
9				68	46	57
10				50	34	42
11				53	36	44.5
13				64	46	55
18				60	42	51
19				64	44	54
21				78	44	61
22				68	46	57
23				64	46	55
24				66	48	57
25				54	38	46
26				44	36	40
28				52	35	43.5
29				60	36	48
30				62	42	54
May 1				52	40	46
2				52	41	46.5
3				56	38	47
5				54	40	47
6				50	34	42
7	56	51	53.5	58	36	47
8	60	52	56	62	40	51
9	63	57	60	69	46	57.5
10	60	54	57	66	39	52.5
11	64	57	60.5			
12	64	56	60	64	42	53
13	61	56	58.5	62	50	56
14	66	56	61	70	46	58
15	70	59	64.5			
16	70	61	65.5	71	51	61
17	67	57	62	70	52	61
18	59	53	56			
19	59	53	56			
20	64	55	59.5			

DATE	Water-6" depth			Air		
	Max.	Min.	Av.	Max.	Min.	Av.
May 21	59	54	56.5	66	40	53
22	62	55	58.5	60	48	54
23	63	55	59	64	44	54
24	68	57	62.5			
25	68	57	62.5			
26	68	57	62.5			
27	66	57	61.5	70	46	58
28	68	58	63	68	49	58.5
29	70	59	64.5	70	40	55
30	62	59	60.5	54	50	52
31	64	57	60.5	67	54	60.5
Jun 1	64	57	60.5			
2	70	59	64.5	70	50	60
3	68	59	63.5	70	50	60
4	70	58	64	69	54	61.5
5	67	62	64.5	76	60	68
6	72	63	67.5	80	64	72
7	72	64	68	87	63	75
8	76	66	71			
9	77	66	71.5			
10	76	63	69.5	85	46	65.5
11	70	63	66.5	70	52	61
12	70	64	67	78	63	70.5
13	72	64	68	77	55	66
14	74	63	68.5	63	54	58.5
15	76	67	71.5			
16	65	64	64.5			
17	72	63	67.5	73	52	62.5
18	75	65	70	70	54	62
19	76	66	71	76	60	68
20	70	63	66.5	72	48	60
21	65	60	62.5	63	50	56.5
22	69	63	66			
23	64	63	63.5	70	56	63
24	73	64	68.5	73	58	65.5
25	70	62	66	74	58	66
26	68	62	65	72	60	66
27	70	61	65.5	70	60	65

1968 WESTPORT MILL POND

Net No.	Net Size	Date Set Apr.	Net Days	Northern Pike	Yellow Walleye	Sucker	Bullhead	Ling	Perch	Sunfish	Rock Bass	Crappie	BASS				TOTALS
													Total Caught		Recaptures		
													Sm.	Lm.	Sm.	Lm.	
Trap 1	6'	16	17	70	3	10	246	5	23	2617	15	217	1	490		193	3,697
Trap 2	6'	16	16	91	2	17	185	13	21	5375	49	284	6	528	1	238	6,571
Trap 3	6'	16	13	21	5	19	23	19	20	544	3	95	2	48		25	799
Trap 4	6'	16	16	70	0	4	85	1	4	2501	3	171	1	589		273	3,429
Trap 5	6'	23	9	39	2	0	12	0	5	998	3	37	0	194		94	1,290
Hoop 6	3'	17	14	10	0	2	76	4	1	1250	44	3	3	32	2	14	1,425
Hoop 7	3'	22	9	2	0	0	17	0	0	298	1	0	0	21		5	339
TOTAL			94	303	12	52	644	42	74	13583	118	807	13	1902	3	842	17,550

All largemouth bass and all smallmouth bass caught were returned to the Mill Pond.

All other fish caught were removed from the Mill Pond.

WESTPORT MILL POND INDICATING TRAP AND HOOP NET SETS - 1968

TINY MARSH DUCK BANDING-1968

by
H.C. Mulholland, Conservation Officer Lake Simcoe District

Abstract

In the fall of 1968, the Fish and Wildlife Branch of Lake Simcoe District carried out a duck-banding project at Tiny Marsh in which 596 ducks were banded. Comprising this total were; 269 mallards, 211 blue-winged teal, 105 black ducks, 4 green winged teal, 4 wood-ducks, 2 pintails, and 1 ring-necked duck.

There were 4 cages constructed for this project. Three cages were placed entirely in the water, (marsh sets), and 1 was placed partly on land and partly in the water, (land set). These cages will remain set-up the year around, and will be used from year during the banding season.

The cost of this project totalled $1,019.50. This averages out to (approximately) $1.71 per duck.

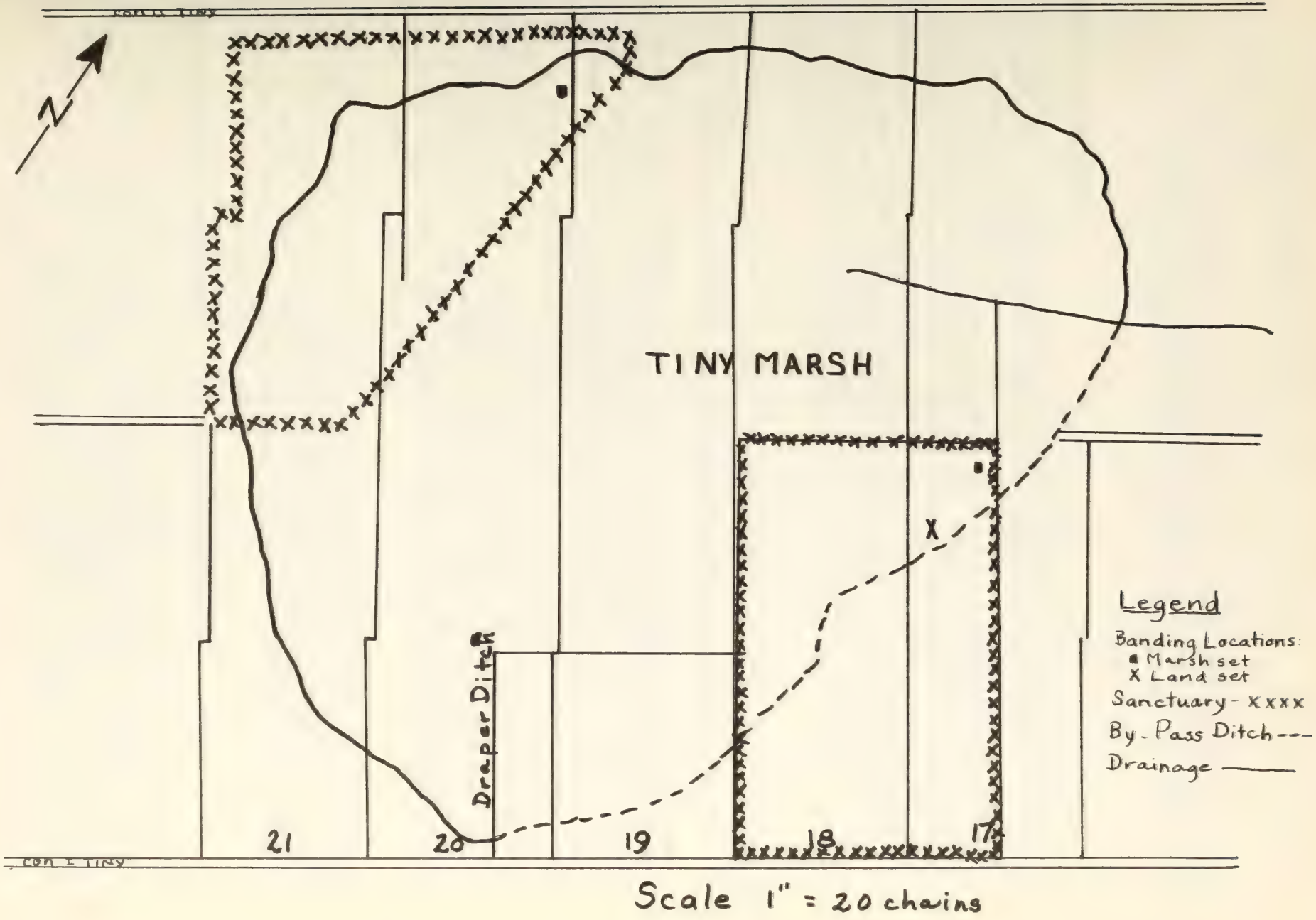
Description of Tiny Marsh

Tiny Marsh is located in Simcoe County, Tiny Township, in the first and third concessions, and including lots 17 to 21, the total area covers 2,300 acres. A by-pass ditch runs from the south end of lot 20, concession 1, and empties into the main drainage ditch. This ditch then empties into the Wye River on the east side of the marsh. The Department has excavated this by-pass ditch as a guard against the chance of a flood creating havoc in the farming community at the south end of the marsh.

A control dam has been constructed on the main drainage ditch, to keep the stable water levels which are necessary in a well-managed waterfowl marsh. The average water level in the marsh is approximately 20" (inches), excluding the old drainage ditches which were dug by the farmers in the south-east corner of the marsh in a futile effort to reclaim some land.

There is an abundance of aquatic vegetation in the southern portion of the marsh, with burreed being the most common plant. The northern portion of the marsh is not as heavily vegetated, with larger expanses of water being in evidence. Two sanctuaries of approximately 300 acres each are located in the marsh, one on the north-west corner, the other in the south-east corner. (see map of marsh).

MAP #1



Scale 1" = 20 chains

Methods and Materials

All the cages used in this project were constructed from #14 gauge 1" x 1" mesh, welded galvanized wire. Large hog rings were used in the fabrication of the cages, and 8' steel fence posts were used in securing the cages in the marsh. Small mesh netting was found quite effective as a topping for the cages.

Construction Procedures:

We constructed 2 cages measuring 21' long x 6' wide x 5' high. These cages were divided into 3 equal sections, each with an access door and trap on one side. Thus each section measured 7' x 6' x 5'. Door openings were cut into the front panel, being placed on the left side so that they were approximately 15" from the left edge of the panel, and 20" from the bottom. Doors were then made to fit the openings allowing at least 1" to overlap all around. We then made tunnel-shaped traps measuring 12" wide x 20" high x 22" long. These we formed from a 52" x 22" piece of wire mesh. The sides were tapered towards the back to make an outlet of approximately 4" across. An opening, 20" x 12" was then cut approximately 15" from the right side of the panel at the bottom to accommodate this trap. We also built a single section of the above design which we used as another cage. (See illustration #1).

These cages were then set in approximately 16" - 18" of water, making sure that there was at least 3" of the trap entrance above the water. They were placed in open water, approximately 30' from a weed-bed, and with traps facing the weed-bed.

We constructed one banding cage placed so that it was half on land and half in the water. This cage measured 50' long x 5' wide x 5' high. It was made with a complete wire-mesh floor to discourage animals from digging under the sides and into the cage. The trap was of the same general design as above, but made to suit shallower water. This was placed in the bottom center of the end panel in about 14" of water. The panel on this end was cut 6' long so that it formed a U shape when it was attached. A door 18" wide x 24" high was cut into the center of the opposite end panel. An opening 14" wide x 11" high was then cut in the bottom left hand corner of this end, next a 6' long catching box was made to fit this opening, attaching it on the outside of the cage, a small access door was made in the top of this box. A door was then made to close off the opening of this box from inside the cage. This door was made to swing up, and was remotely controlled with a wire. (See illustration #2).

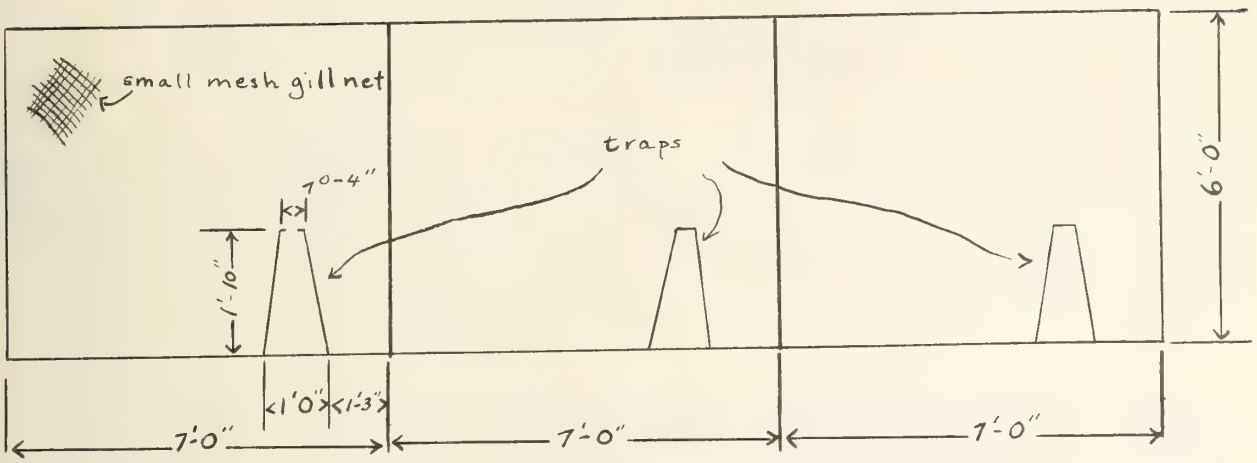
Heavy hog rings were quick and easy to use in assembling the side and end panels, and also in attaching the traps and doors. The assembled cages were held securely in the marsh with 8' long steel fence posts placed strategically at each corner and along the sides. Small mesh netting was attached across the tops of the cages, and was hung inside the long cage to prevent the ducks from flying the length of the cage and injuring themselves.

Banding Locations and Procedures: (See locations on map)

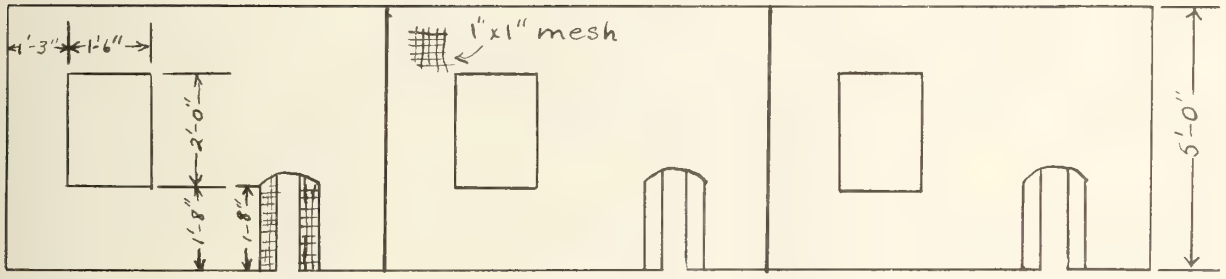
On August 9, we set the first cage in the marsh at the end of the Draper Ditch. This area was then liberally baited with whole corn, gradually the baited area was decreased in size, until the bait was placed at the trap and in the cage. The first ducks were banded here on August 11, 1968, another water set was then erected in the sanctuary using the same baiting method, and was operating by August 14, 1968. Next we started working on the long land set and had it in operation by August 26. Finally we set out a single unit in the resting area off the third concession.

ILLUSTRATION #1 MARSH SET

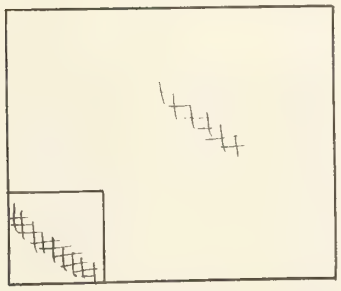
TOP VIEW



SIDE VIEW



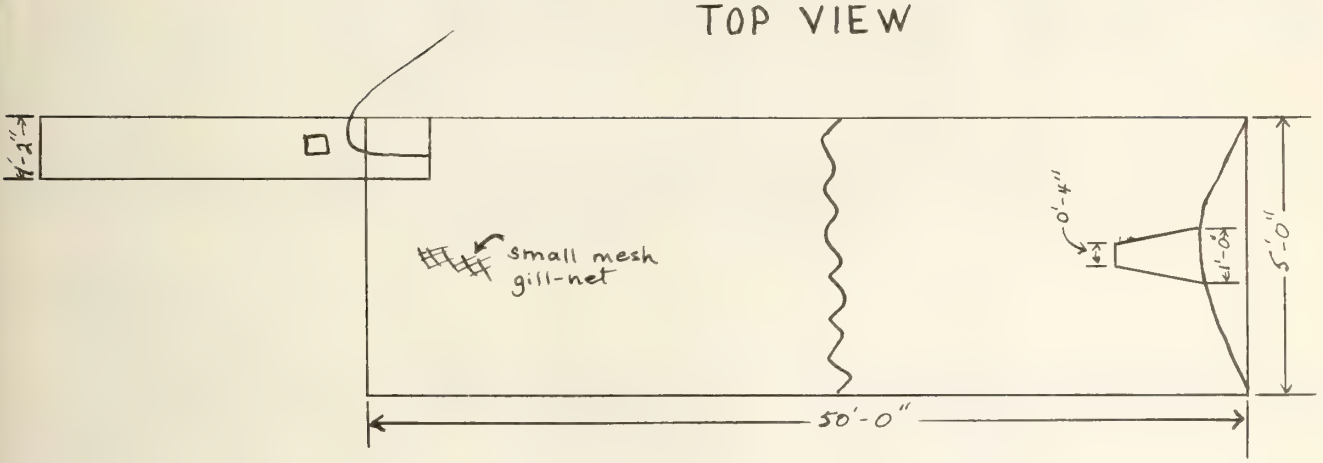
END VIEW



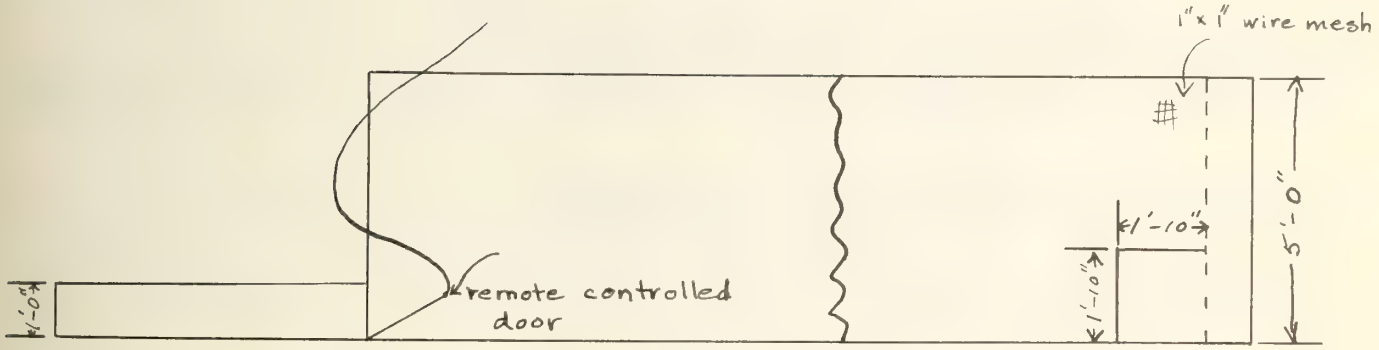
Scale 1" = 3'-0"

ILLUSTRATION #2 - LAND SET

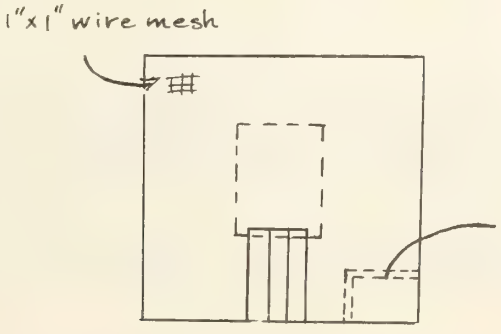
TOP VIEW



SIDE VIEW



END VIEW



Scale 1" = 3'-0"

To band the ducks in the water sets, we opened the access doors, and caught the ducks in a large landing net. (This net should have small mesh). These ducks were banded, recorded, and released as they were removed from the cage. In the large land set, we opened the door to the catching box, and moved slowly from the front of the cage to the rear, moving the ducks toward the catching box. When enough ducks had entered this box, we pulled the door shut. We then lifted them out one at a time through a small door in the top of the box, banding, recording and releasing each in turn.

Banding was curtailed on September 10, when we found we were getting in excess of 75% recaptured ducks. We banded again for two days, on October 11 and 12, but found that this condition still existed. (See banding summary).

Observations

In the operation of the different cages, we discovered that the marsh set in the south-east sanctuary was working very well. We found over 90 unbanded ducks in this cage one morning. The large land set produced approximately 25% of the total; however, this set was not in operation until well after two other sets had been well established. After an early start, the cage at the end of the Draper Ditch quit producing, and was moved without much added success. It yielded approximately 15% of the total. We were not able to capture any ducks in the single unit cage off the third concession in the resting area. There are many ducks in this area, but the vegetation is of a low variety, and is quite sparse, thus the cage had to be set in quite an open area.

Conclusions and Recommendations

This year's banding program was quite successful with all cages but one showing some production. However, I believe, that as the ducks become used to this cage breaking the continuity of the marsh, and less suspicious of it, we will have better luck in this area.

The cage at the end of the Draper Ditch should be removed to a more remote area. We found that people had been visiting this area and as the visits increased the success of our banding program here, decreased.

In any future construction, heavier gauge wire mesh should be used for the cages.

In future banding seasons, all banding areas should be in operation by August 1st of that season.

Acknowledgements

I would like to extend my thanks to all those who helped in this year's banding program: Senior Conservation Officer, H. Van Wyck; Conservation Officers, R. Manley and R. Morton; and marsh handy-man, "Woody" McConnell.

A special vote of thanks to Mr. E. Kroll of Oshawa from whose years' of experience I was able to glean a great deal of banding information.

SUMMARY OF DUCKS BANDED

Species	Hatching Year	After Hatching Year	Total
Mallards	170	99	269
Blacks	69	36	105
Blue-Winged Teal	142	69	211
Green-Winged Teal	2	2	4
Wood-Ducks	-	4	4
Pintails	2	-	2
GRAND TOTAL	385	211	596